

WHAT IS CLAIMED IS:

1. An LED light bulb, comprising a light bulb head, a case, an LED unit, an electronic control board, and a light bulb cover; where the light bulb head is connected to the case, and the case is connected to the light bulb cover to form an enclosed space to house the electronic control board and the LED unit, conductive wires being used to electrically connect the light bulb head, the electronic control board and the LED unit, the electronic control board further comprising a power supply circuit, a control circuit, and an LED circuit, where the power supply circuit is used to convert an AC input to a DC current to provide power to the control circuit and the LED circuit, the control circuit being used to control the LED circuit to drive the LED unit, the control circuit using signals from a switch to determine the requested function and control the LED unit accordingly.
2. The LED light bulb as claimed in Claim 1, wherein the switch is connected to a power supply at one end and to the LED light bulb at the other for controlling the power input, and function setting and switching.
3. The LED light bulb as claimed in Claim 1, wherein the switch is for controlling power input.
4. The LED light bulb as claimed in Claim 1, wherein the switch is for function setting and switching.
5. The LED light bulb as claimed in Claim 1, wherein the light bulb head is compatible with a light bulb base of conventional light bulbs.
6. The LED light bulb as claimed in Claim 1, wherein the LED unit comprises a single LED.

7. The LED light bulb as claimed in Claim 1, wherein the LED unit comprises a plurality of LEDs.
8. The LED light bulb as claimed in Claim 1, wherein the control circuit is a timer circuit.
9. The LED light bulb as claimed in Claim 1, wherein the control circuit is a luminance control circuit.
10. The LED light bulb as claimed in Claim 1, wherein the control circuit is a color control circuit.
11. The LED light bulb as claimed in Claim 1, wherein the control circuit comprises a timer circuit, a luminance control circuit, and a color control circuit.
12. The LED light bulb as claimed in Claim 1, wherein the light bulb cover is spherical.
13. The LED light bulb as claimed in Claim 1, wherein the light bulb cover is screw-shaped.
14. The LED light bulb as claimed in Claim 1, wherein the light bulb cover is 3U-shaped.
15. The LED light bulb as claimed in Claim 1, wherein the light bulb head and the case are sealed with glue.